

State of Louisiana  
Department of Transportation and Development (DOTD)  
Materials and Testing Section Qualification Procedure  
for  
Qualified Products List 68

**THREE COAT WATERBORNE PAINT SYSTEM**

**MATERIAL SPECIFICATION REFERENCE:**

Louisiana Standard Specifications for Roads and Bridges 2000 Edition as amended Subsection 1008.02, Three Coat Waterborne Paint System. (copy attached)

This reference covers two paint systems each consisting of two coats of waterborne primer and one coat of waterborne topcoat to be used as specified for painting metal surfaces.

**PRELIMINARY REQUIREMENTS:**

Qualified Product Evaluation Form

Submit a standard "Qualified Product Evaluation Form" to the DOTD Materials and Testing Section Coordinator listed below, along with a letter requesting evaluation for the Qualified Products List. (copy of form attached)

Product Data Sheets

Include product data sheets to provide all pertinent information relative to the product to be evaluated, including, but not limited to, manufacturer's specifications, mixing instructions, recommended application procedure and rate, typical analysis and Materials Safety Data Sheet (MSDS).

Samples (to be furnished at no cost to the Department)

All containers shall be labeled showing the manufacturers brand name, lot number or batch number and date of manufacture.

1. Primers - Supply 1 gallon (4 Liters)
2. Topcoat - Supply 1 gallon (4 Liters)

Materials and Testing Section

## TEST REQUIREMENTS:

### Laboratory Testing

All tests to be performed in accordance with the requirements of the following:

<u>PROPERTY</u>	<u>TEST METHOD</u>
Pigment, % by wt., Min.	ASTM D 3723
Weight/gallon, pounds, Minc.	ASTM D 1475
Solids, % by wt. Min.	ASTM D 3723
Non-volatile in Vehicle, % by wt., Min.	ASTM D 3723
Viscosity, Ku	ASTM D 562
Fineness of Grind, Hegman Scale, Min.	ASTM D 1210
Dry to Touch, Minutes, Max.	ASTM D 1640
Dry Through, hours, Max	ASTM D 1640
pH	ASTM E 70
Sag, Lenetta, Mils, Min.	ASTM D 4400
IR-Spectra	ASTM D 2621

### Accelerated Weathering Test

(a) Three test panels approximately 4 by 8 by 0.13 in., (100 by 200 by 3.3 mm) made from A-36 steel shall be sandblasted to an SSPC-SP10 near white blast and coated in accordance with the specifications. The panels shall then be scribed vertically. After 1500 hours exposure in a salt fog apparatus operated in accordance with ASTM B 117 the panels shall show no scribe creep age in accordance with ASTM D 1654, no blisters larger than number 8 when rated in accordance with ASTM D 714 and no rusting in accordance with ASTM D 610. Disregards rust stains at scribe.

(b) Two steel test panels approximately 3 by 5 by 0.02 in., (75 by 125 by .5 mm) coated with the paint system in accordance with the specifications and scribed vertically shall be unaffected except for slight chalking or discoloration after 1500 hours in an ultraviolet light-water exposure apparatus (QUV) in accordance with ASTM G 154.

(c) Application on the steel panels shall be done with the panels in a near vertical position. The paint shall show no surface imperfections, i.e. pinholes, cratering, bubbles, fisheye, etc. and shall show no sagging and meet the specified dry film thickness.

Total Evaluation Time

Laboratory testing - 1 month

Accelerated weathering testing - 5 months

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**GENERAL:**

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the product will or will not be added to the Qualified Products List. The Department reserves the right to reevaluate any product at any time.

#### **PROJECT ACCEPTANCE REQUIREMENTS:**

Qualification of a product is not blanket approval for its use. Final acceptance of each lot or shipment is dependent upon test results which shall conform to the established specification requirements and which identify the sample as being representative of the product originally approved.

For project acceptance, all materials shall be sampled according to DOTD Sampling Method S604-99 (Copy attached). All manufacturers are expected to comply with all sampling requirements. Manufacturers should thoroughly review the method prior to submitting any materials for qualification for this list.

#### **DISQUALIFICATION:**

Any product may be removed from the Qualified Products List should the product fail to comply with specifications or performance requirements. The Department must be notified in writing of any change in product formulation. Significant changes may require reevaluation of the product.

#### **REQUALIFICATION:**

Any product which has been disqualified and/or removed from the Qualified Products List will be considered for reevaluation only after submission of a formal request along with acceptable evidence that the problems causing the disqualification have been resolved in accordance with the DOTD Materials and Testing Section QPL Handling Procedure.

#### **DOTD MATERIALS AND TESTING SECTION COORDINATOR**

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Approved 08-26-02

DOUG HOOD, P. E.  
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